

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application. Applicants have submitted a new complete claim set showing any marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

### **Listing of Claims:**

1. (Currently amended) An illuminator system for a flat-panel display, comprising:  
a tapered waveguide co-extensive with the display,  
a plurality of light sources each arranged to inject light at a different angle into an edge of the waveguide, wherein light injected from each of the light sources emerges at different positions on a face of the waveguide based on the injection angle corresponding to each light source, and  
means for scanning the emerging light associated with a light source onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide at which the light emerges,  
wherein the waveguide comprises an extended section for mixing light of different colors from a light source before reaching the display, the extended section folded behind the display and comprising one or more prisms  
~~wherein the tapered waveguide has a tapered cross section in a direction of propagation of the injected light.~~
2. (Previously presented) An illuminator system according to claim 1, in which each light source comprises one or more addressable rows of elements, and the scanning means includes a circuit for addressing the rows of elements.

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3. (Previously presented) An illuminator system according to claim 2, in which light from the one or more rows of elements is collimated into the edge of the waveguide by a cylindrical mirror.
4. (Previously presented) An illuminator system according to claim 2, in which light from the one or more rows of elements is collimated into the edge of the waveguide by a further waveguide.
5. (Previously presented) An illuminator system according to claim 2, in which the one or more rows of elements comprises a plurality of LEDs.
6. (Previously presented) An illuminator system according to claim 1, further including a film for guiding light emerging from the face of the waveguide towards a normal to the face of the waveguide.
7. (Previously presented) A display comprising an illuminator system according to claim 1, used as a backlight, and a flat-panel modulator over the waveguide.
8. (Previously presented) A display according to claim 7, in which the modulator is a liquid-crystal display.
9. (Previously presented) A display according to claim 2, in which a scanning addressing circuit is synchronized with the row addressing circuit.
10. (Previously presented) An illuminator system according to claim 1, wherein the waveguide is geometrically tapered.
11. (Currently amended) An illuminator system according to claim 1, wherein the waveguide

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is optically tapered by including internal variations in refractive index.

12. (Currently amended) A method for illuminating a flat-panel display, comprising:

a) injecting light from a light source of a plurality of light sources at an injection angle into an edge of a tapered waveguide that is co-extensive with the display, wherein light of different colors from the light source is mixed in an extended section of the waveguide folded behind the display and comprising one or more prisms, wherein the injected light emerges from a position on a face of the waveguide based on the injection angle of the light source, ~~wherein the tapered waveguide has a tapered cross-section in a direction of propagation of the injected light;~~

b) scanning light emerging from the position on the face of the waveguide onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide;

c) switching off the light source; and

d) sequentially repeating steps a) - c) for one or more other light sources of the plurality of light sources, wherein each of the plurality of light sources corresponds to a different injection angle, so that different portions of the display are illuminated in turn as each light source injects light into the edge of the waveguide.

13. (Previously presented) A method according to claim 12, wherein each light source comprises one or more addressable rows of elements.

14. (Previously presented) A method according to claim 13, wherein light from the one or more rows of elements is collimated into the edge of the waveguide by a cylindrical mirror.

15. (Previously presented) A method according to claim 13, wherein the light from the one or more rows of elements is collimated into the edge of the waveguide by a further waveguide.

16. (Previously presented) A method according to claim 13, wherein the one or more rows of

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elements comprises a plurality of LEDs.

17. (Previously presented) A method according to claim 12, wherein the scanning further comprises guiding light emerging from the face of the waveguide towards a normal to the face of the waveguide.

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